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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,661	09/08/2003	Hiroshi Kashiwagi	KON-1821	2782
20311	7590	11/28/2006	EXAMINER	
LUCAS & MERCANTI, LLP 475 PARK AVENUE SOUTH 15TH FLOOR NEW YORK, NY 10016			CHEA, THORL	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,661

Applicant(s)

KASHIWAGI ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on September 15, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This office action is responsive to the communication on September 15, 2006; Claims 1-4, 6, 10-13 are pending in this instant application; claims 5, 7-9 have been canceled.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However, the rejections set forth in the previous action is maintained, and reproduced such as shown below for the applicant's convenience.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 10, 12 are rejected under 35 U.S.C. 103(a) as obvious over Arai et al (US Patent No. 6,090,538) and Takada et al (US 6,235,460). See examples 3, columns 53-54, wherein the silver iodobromide grains is prepared in the presence of 4-hydroxy-6-methyl-1,3,3a, 7-tetrahydrazine and the preparation of organic fatty acid silver emulsion such as silver salt of behenic acid and the reducing agent of formula (R-I) in column 60, claim 7 and column 36,

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Table 1. The 4-hydroxy-6-methyl-1,3,3a, 7-tetrazaidene is considered as electron trapping electron used in the applicants' disclosure on page 85, silver halide emulsion 3. Arai et al disclose the material having composition as claimed except does not show the requirement $S_B/S_A \leq 0.2$ presented in the claimed invention. Takada et al in column 12, lines 1-67 to column 13, lines 1-40 discloses the silver halide grains which are subjected to chalcogen sensitization such a sulfur compound, noble metal complex in combination with organic compound such as 4-hydroxy-1,3,3a, 7-tetrazaidene which can be added before, during, after grain formation, at the stage of washing, at the stage of dispersion after washing, before during or after chemical sensitization or before coating. See 4-hydroxy-1, 3,3a,7-tetrazaidene compound in column 13, lines 29-30. Arai et al disclose the use of the same compound which 4-hydroxy-1, 3,3a,7-tetrazaidene compound used in the applicants 'declaration submitted on April 10, 2006 as organic dopant during the preparation of silver halide emulsion, but fails to disclose whether the compound is added during nucleus formation or during grains growth. However, Takada et al discloses that the compound can be added any time such as before, during, after grain formation, at the stage of washing, at the stage of dispersion after washing, before during or after chemical sensitization or before coating with an expectation of achieving similar results. It is also disclosed in column 13 lines 35-30, that in addition to antifogging or stabilizing effects, these compounds can also be employed for the purpose of controlling crystal habit during grain growth, restraining grain growth or reducing grain solubility. Therefore, it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to add the compound taught in Takada et al during the state of silver halide grain growth to control the grain growth and at the same time provide a photothermographic material with

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antifogging or stabilizing effects, and thereby provide a material as claimed. The limitation such “wherein the photothermographic material further comprises a compound represented by the following formula (I), and the photothermographic material meets the following requirement:

$S_B/S_A \leq 0.2$, wherein S_A represents a sensitivity obtained when exposed to white light (4874K) for 30 sec. through an optical wedge, and then developed at 110 °C for 15 sec., and S_B represents a sensitivity obtained when subjected to a heat treatment at 110 °C for 15 sec., and exposed to white light (4874K) for 30 sec. through an optical wedge, and then developed at 110 °C for 15 sec.” is inherent to the material obtained by the combination of Arai et al (US Patent No. 6,090,538) and Takada et al (US 6,235,460).

5. Claims 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Arai et al and Takada et al (US 6,235,460) as applied to claims 1-4, 6, 10, 12 above, and further in view of Maeda et al (US 2002/0042031 A1). Maeda et al discloses silver salt of fatty acid having grains size of 0.05 to 1.5 microns on page 27, claim 13, and chemical sensitizer on page 11, [0070] to [0093]. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver salt of fatty acid having grains size disclosed in Maeda et al in the material of Arai et al with an expectation of achieving a material exhibiting enhanced sensitivity and reduced fogging.

Response to Arguments

6. Applicant's arguments filed September 15, 2006 have been fully considered but they are not persuasive of the reason set forth the rejection set forth above. It is the Examiner's position

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the invention as claimed, at least, found prima facie obvious over the combination of the applied prior art above since it has been known in Takada et al to added the applicants' claimed compound at any time during the process for forming silver halide grain such as employing for the purpose of controlling crystal habit during grain growth, restraining grain growth or reducing grain solubility (col. 13, lines 35-40). Therefore, it would have been obvious to the worker of ordinary skill in the art at least to use such the 4-hydroxy-1, 3,3a,7-tetrazaidene compound for similar reason. Arai et al may not disclose the use of the 4-hydroxy-1, 3,3a,7-tetrazaidene compound during nucleus formation, but at least using the compound to control the grain growth within the step of "during grain growth" claimed in the present claimed invention.

The Declaration submitted on July 10, 2006 and September 15, 2006 have been considered, but fails to overcome the prima facie case of obviousness rejection. However, the Declaration fails to provide the comparative results to obviate the prima facie case of obviousness rejection set forth above. The results shown in the specification disclosure has been considered, but they are not commensurate with the scope of the claimed invention. See for instance the results shown in Table 1 which contains a specific amount of behenic acid, arachidic acid, and stearic acid having melting point with preferred range. The criticality of the compound dopant or the criticality of the step of adding the compound during the formation of silver halide grains is not shown therein. The results shown in the specification cannot be achieved using the dopant inside the silver halide in the absence of the adder critical additives presented therein.

Conclusion

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea *th*
2006-08-16



Thorl Chea
Primary Examiner
Art Unit 1752